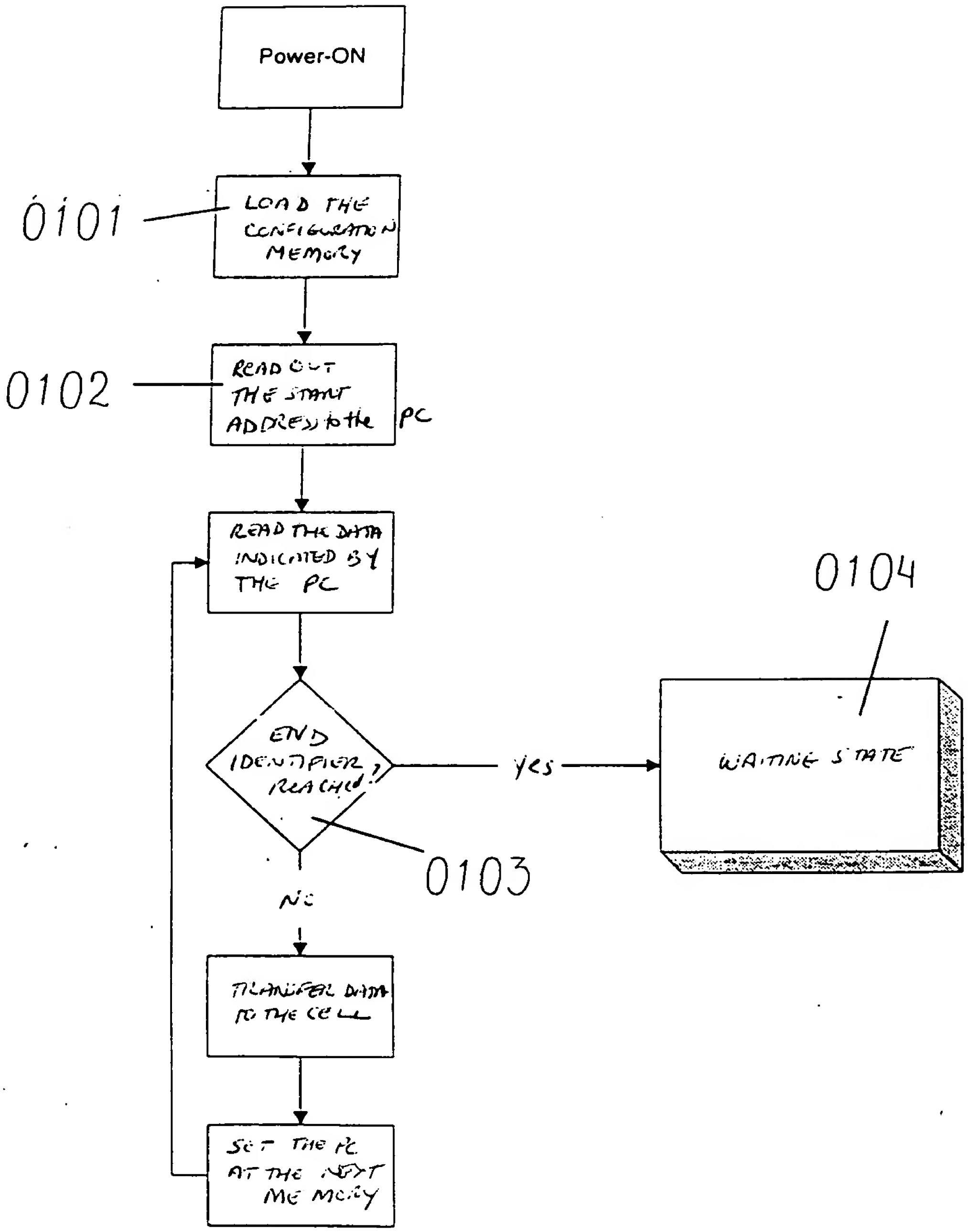
Power-ON
0101
LOAD THE CONFIGURATION MEMORY
0102
READ OUT THE START ADDRESS to the PC
READ THE DATA INDICATED BY THE PC
0104
END IDENTIFIER REACHED?
yes
WAITING STATE
0103
NO
TRANSFER DATA TO THE CELL
SET THE PC AT THE NEXT MEMORY

Fig. 1

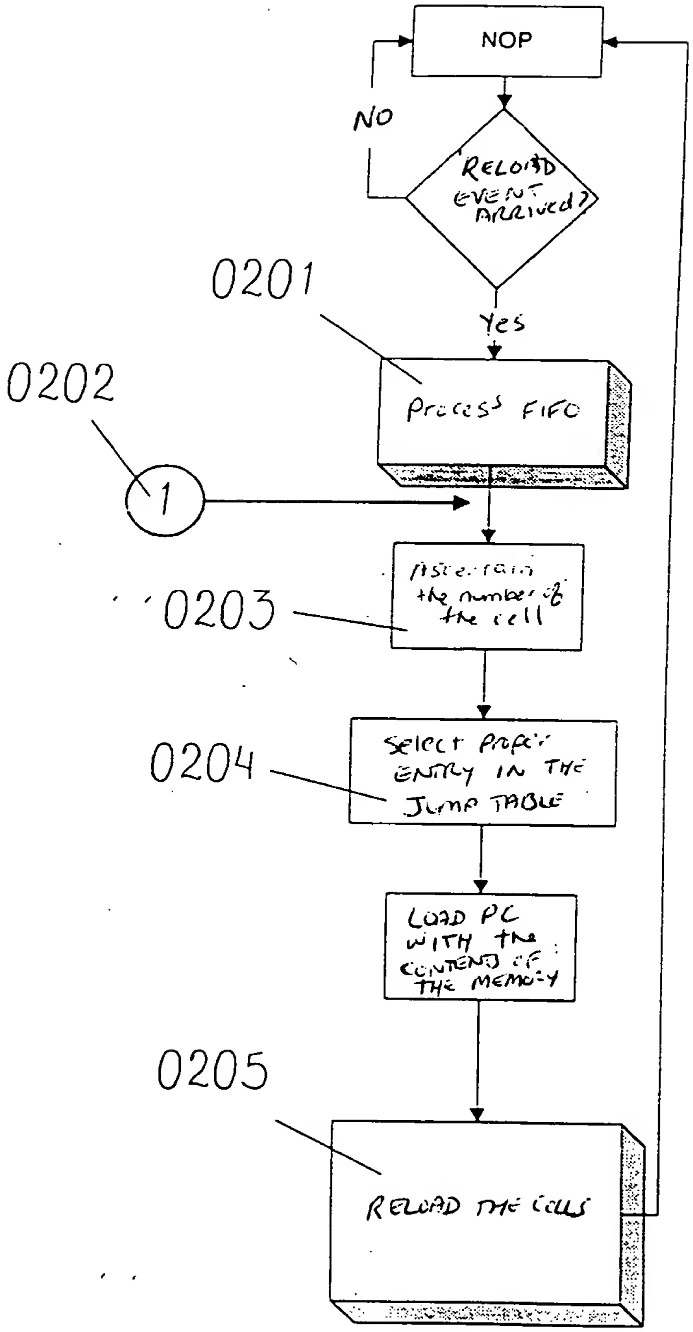
NOP
NO
RELOAD EVENT ARRIVED?
Yes
0201
Process FIFO
0202
1
Ascertain the number of the cell
0203
Select Proper ENTRY IN THE JUMP TABLE
0204
LOAD PC WITH THE CONTENTS OF THE MEMORY
0205
RELOAD THE CELLS

Fig. 2

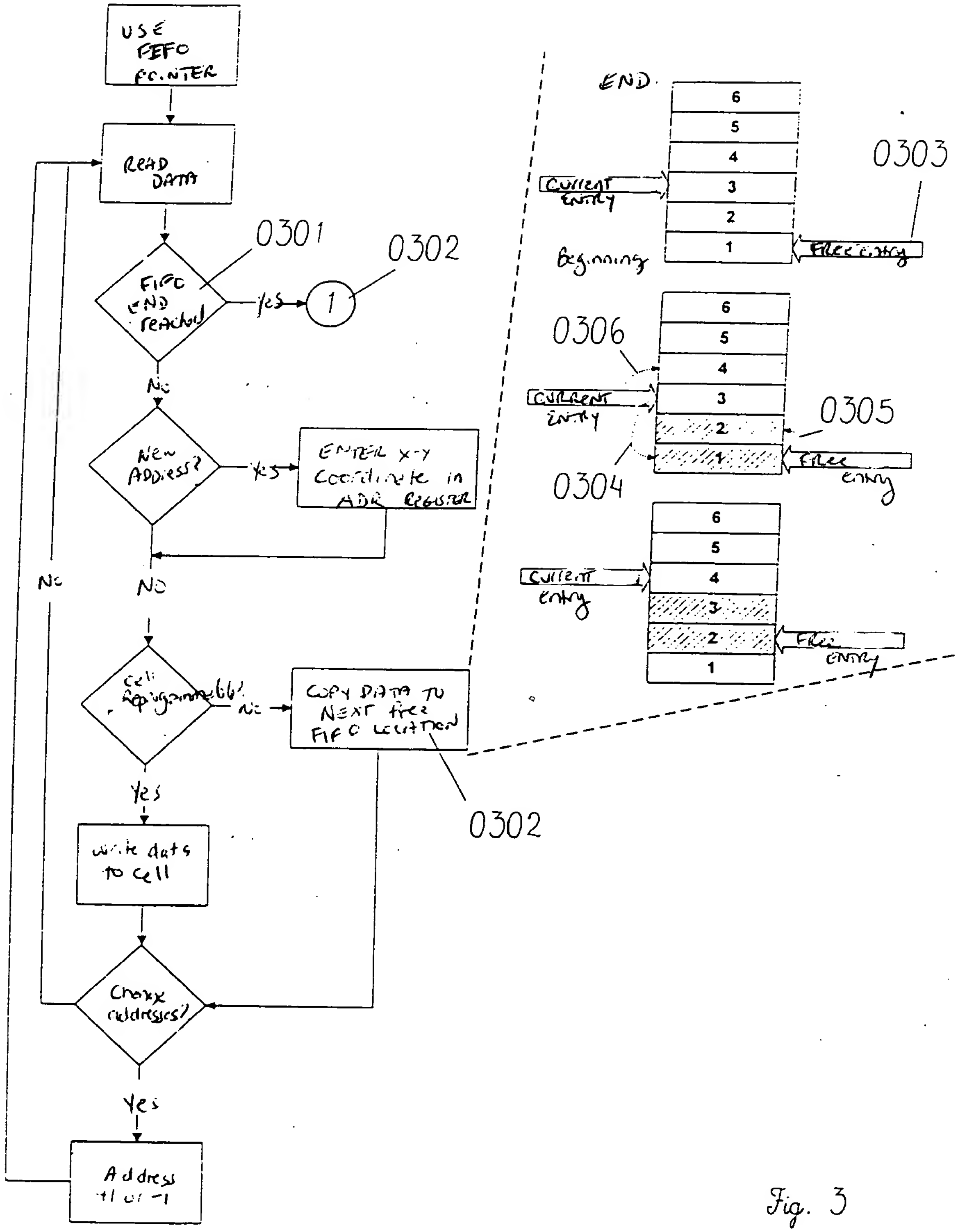
USE FIFO POINTER
READ DATA
FIFO END reached
Yes
1
0301
0302
No
New Address?
Yes
ENTER X-Y Coordinate in ADR REGISTER
NO
No
Cell Reprogrammable?
No
COPY DATA TO NEXT free FIFO LOCATION
0302
Yes
write data to cell
Check addresses?
Yes
Address +1 or -1
END
6
5
4
3
2
1
Current Entry
Beginning
Free entry
0303
0306
CURRENT ENTRY
0305
Free entry
0304
Current entry
Free entry

Fig. 3

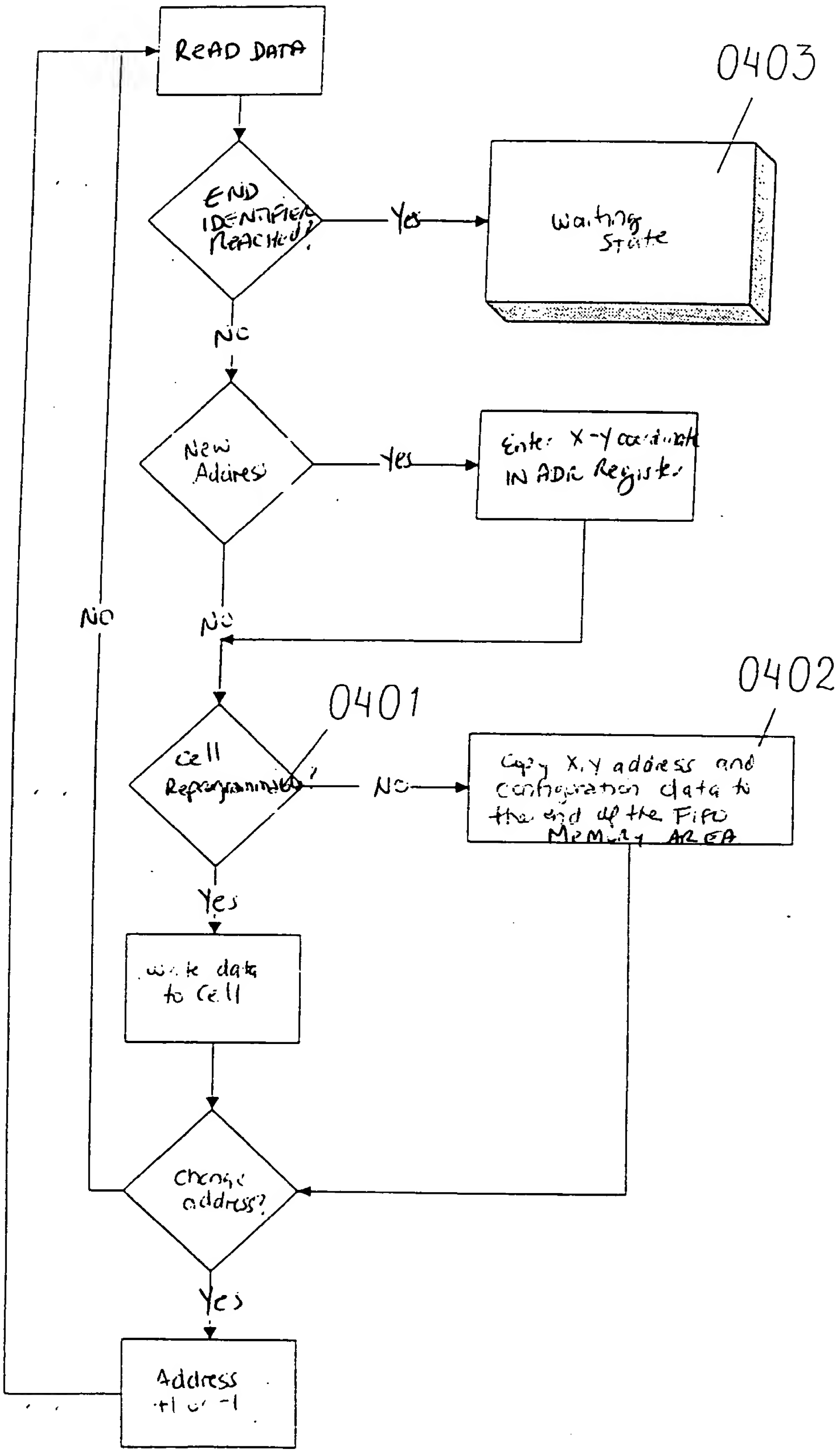
READ DATA
END IDENTIFIER Reached?
Yes
Waiting State
0403
NO
New Address
Yes
Enter X-Y coordinate IN ADR Register
NO
NO
0401
Cell Reprogrammable?
NO
0402
Copy X,Y address and configuration data to the end of the FIFO Memory AREA
Yes
write data to Cell
Change address?
Yes
Address +1 or -1

Fig. 4

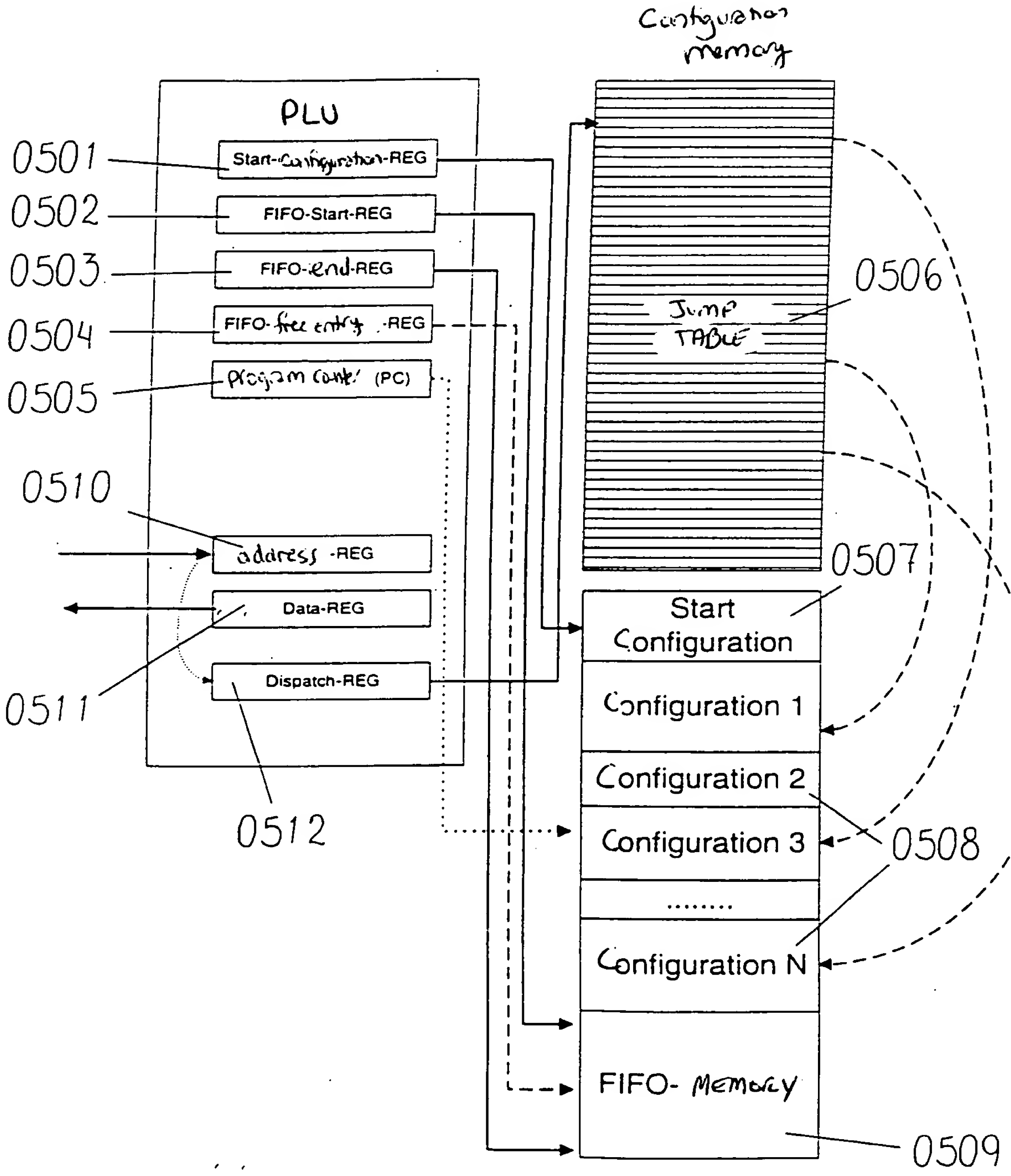
Configuration memory
PLU
0501
Start-Configuration-REG
0502
FIFO-Start-REG
0503
FIFO-end-REG
0504
FIFO-free entry -REG
0505
Program Counter (PC)
0510
address -REG
Data-REG
0511
Dispatch-REG
0512
0506
Jump TABLE
0507
Start Configuration
Configuration 1
Configuration 2
Configuration 3
0508
....
Configuration N
FIFO- Memory
0509

Fig. 5

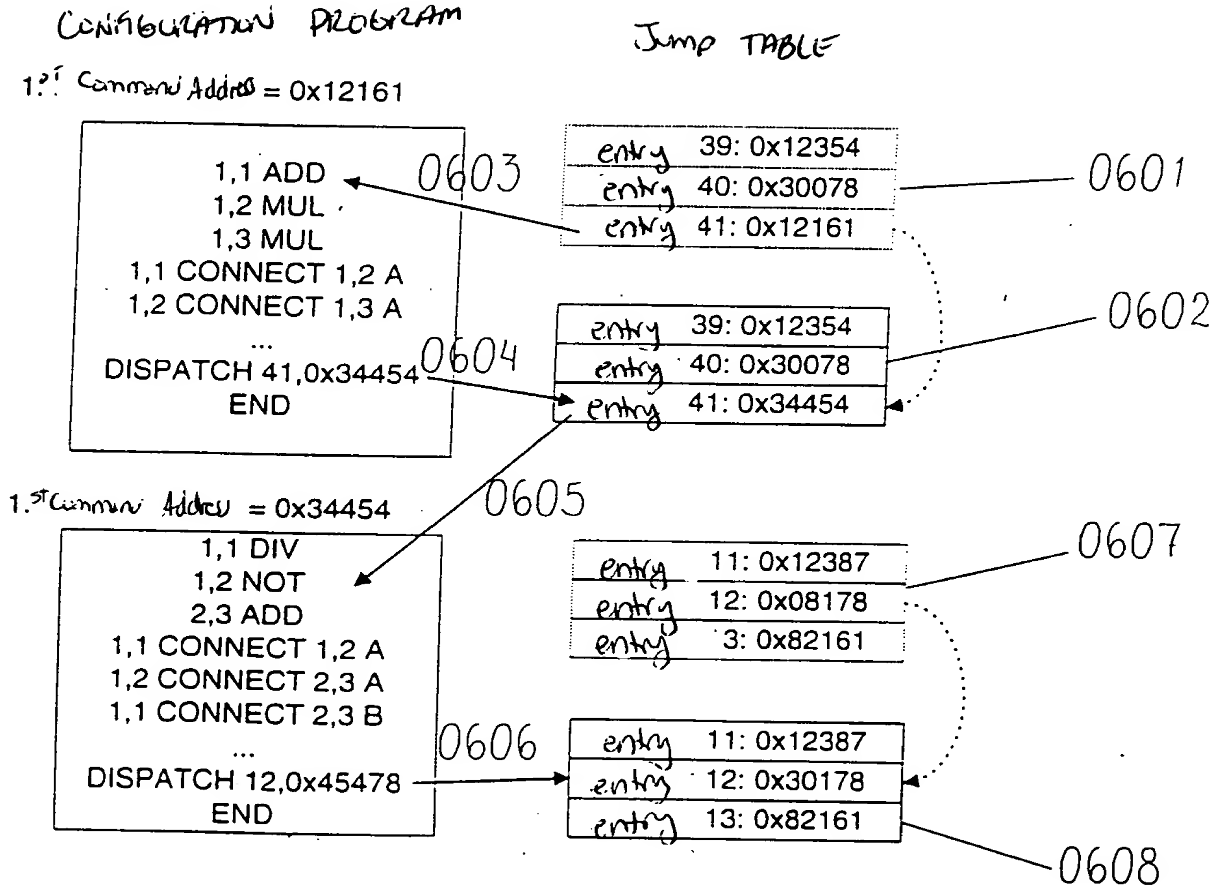
CONFIGURATION PROGRAM
JUMP TABLE
1.st Command Address = 0x12161
1,1 ADD
1,2 MUL
1,3 MUL
1,1 CONNECT 1,2 A
1,2 CONNECT 1,3 A
...
DISPATCH 41,0x34454
END
entry 39: 0x12354
entry 40: 0x30078
entry 41: 0x12161
0603
0601
entry 39: 0x12354
entry 40: 0x30078
entry 41: 0x34454
0604
0602
1.st Command Address = 0x34454
1,1 DIV
1,2 NOT
2,3 ADD
1,1 CONNECT 1,2 A
1,2 CONNECT 2,3 A
1,1 CONNECT 2,3 B
...
DISPATCH 12,0x45478
END
0605
entry 11: 0x12387
entry 12: 0x08178
entry 3: 0x82161
0607
0606
entry 11: 0x12387
entry 12: 0x30178
entry 13: 0x82161
0608

Fig. 6